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U. S. DEPARTMENT OF AGRICULTURE,
HAWAII EXPERIMENT STATION, HONOLULU, H. T.
PRESS BULLETIN No. 7.

TACK THIS CARD IN A CONSPICUOUS PLACE.

MOSQUITOES

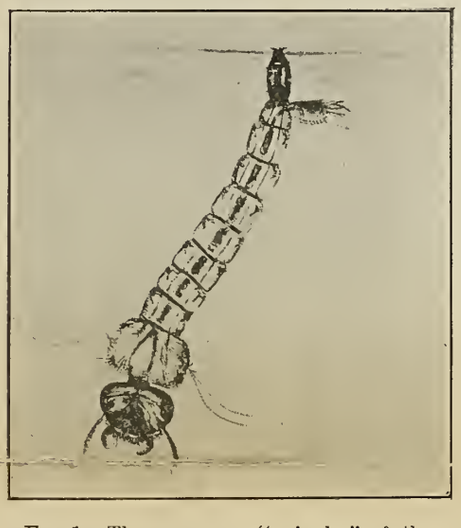

FIG. 1. The young or "wriggler" of the Mosquito in water (greatly enlarged).

FIG. 2. The "day" Mosquito (enlarged).

You are Responsible for the Mosquitoes in Your Own House and Dooryard. Read These Rules Carefully.

1. Mosquitoes breed *only* in water; usually fresh, standing water in artificial places.
2. Mosquitoes occur in the vicinity in which they breed. Invasions from long distances are exceptional.
3. The young mosquito or "wriggler" lives in water at least 10 or 12 days.
4. Although the wrigglers live in water, they *must* come frequently to the surface to breathe.
5. Coal-oil on the surface of the water prevents the wriggler from breathing.
6. Destroy the breeding places and you will destroy the mosquitoes.
7. Empty the water from all tubs, buckets, cans, flower pots, vases, etc., once a week.
8. Fill in or drain all pools, ditches, and various excavations, as post holes left unfilled, etc.
9. Change regularly every week all water needed in chicken-coops, kennels, etc.
10. Treat with coal-oil all standing water which cannot be screened or drained (1 oz. of oil will cover 15 square feet of surface). The oil does not affect the water for use if the water is drawn from below.
11. Put wire-netting over cisterns, wells and tanks of water in every-day use.
12. Places in which it is undesirable to place oil, such as watering troughs for stock, lily-ponds, etc., can be kept free of the wrigglers by putting in gold-fish. The nymphs of dragon flies and tadpoles of frogs also feed on the wrigglers.
13. See that the plumbing about the place is in perfect order. Prevent leakage of pipes or clogging of eaves.
14. Inspect all cesspools and see that the covers are *absolutely* tight.
15. Clean away all weeds, grass and bushes about ditches, ponds, and other possible breeding places, since these afford a hiding place for the adult mosquitoes.
16. Clean up vacant lots and back yards of all cans, tins, bottles and rubbish.
17. First do away with or treat all places where mosquitoes are KNOWN to breed, and then begin work on places where they MIGHT breed.
18. As a citizen of your community you should feel a personal responsibility for the destruction of the mosquitoes in your district, and seek to co-operate with your neighbors in the work of doing away with breeding places. Inspect and treat with coal-oil gutters, culverts, ditches, man-holes, catch-basins, etc., along the roadside. Man-hole covers should be screened.
19. Where oil is applied to standing water it must be distributed evenly over the surface. Use a hand syringe, or, if the area is great, a knapsack sprayer.
20. Houses should be cleared of all winged mosquitoes by the burning of insect powder. The mosquitoes will fall to the floor, and should be collected and burned.
21. RELIEF IN ANY COMMUNITY OR DISTRICT DEPENDS ENTIRELY UPON THE CO-OPERATION OF THE MEMBERS OF THE COMMUNITY.

HONOLULU, SEPT. 14, 1903.

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Publication authorized,
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